

What is claimed is:

1. A plasma display panel comprising:

a first substrate;

a plurality of first substrate electrode pairs formed on the first substrate at constant intervals in one direction;

a first dielectric layer formed on the first substrate including the first substrate electrode pairs;

a second substrate;

a plurality of second substrate electrodes formed on the second substrate at constant intervals to cross the first substrate electrode pairs;

a second dielectric layer formed on the second substrate including the second substrate electrodes;

first barriers formed on the second dielectric layer with the second substrate electrodes interposed therebetween;

auxiliary barriers formed at both sides of the first barriers;

a phosphor layer formed on the second dielectric layer including the first barriers; and

second barriers formed in a boundary portion of upper and lower discharge cells on the second substrate to have a width which increases toward the first barriers from a central portion and to be separated from the first barriers.

2. A plasma display panel of claim 1, wherein the auxiliary barriers have a greater lower area than an upper area at both sides of the first barriers.

3. A plasma display panel of claim 2, wherein the auxiliary barriers are formed at both sides of the first barriers in a round shape.

4. A plasma display panel of claim 1, wherein the auxiliary barriers are layered on a lower portion of both sides of the first barriers at a predetermined height and width.

5. A plasma display panel of claim 1, wherein the second barriers have a greater width toward a lower portion.

6. A plasma display panel of claim 1, wherein the second barriers have a round shape at a surface opposite to the first substrate electrode pairs.

7. A plasma display panel of claim 1, wherein the second barriers are separated at their central portion by X axis, Y axis, or X and Y axes.

8. A plasma display panel comprising:

a first substrate;
a plurality of first substrate electrode pairs formed on the first substrate at constant intervals in one direction;
a first dielectric layer formed on the first substrate including the first substrate electrode pairs;
a second substrate;
a plurality of second substrate electrodes formed on the second substrate at constant intervals to cross the first substrate electrode pairs;
a second dielectric layer formed on the second substrate including the second substrate electrodes;
barriers formed on the second dielectric layer with the second substrate electrodes interposed therebetween;
a phosphor layer formed on the second dielectric layer including the barriers; and
a plurality of projections formed on the phosphor layer between the respective barriers at constant intervals in the same direction as the barriers.

9. A plasma display panel of claim 8, wherein the projections are separated from inner sides of the barriers at their lower portion, upper portion, or lower and upper portions.

10. A plasma display panel of claim 8, wherein the projections are gradually narrowed toward their upper portion from their lower portion.

11. A plasma display panel of claim 10, wherein the projections have a conical shape.

12. A plasma display panel of claim 10, wherein the projections have a polygonal shape.

13. A plasma display panel of claim 10, wherein the projections have a height equivalent to the barriers.

14. A plasma display panel comprising:
a first substrate;
a plurality of first substrate electrode pairs formed on the first substrate;
a second substrate;
second substrate electrodes formed on the second substrate to cross the first substrate electrode pairs;
a first dielectric layer formed on the second substrate including the second substrate electrodes;
barriers formed on the first dielectric layer in first and second directions; and

a second dielectric layer formed on the first substrate including the first substrate electrode pairs at a predetermined height, having a groove of a predetermined width and depth in the first and second directions on a surface region.

15. A plasma display panel of claim 14, wherein the barriers have a lattice shape being crossed in horizontal and vertical directions.

16. A plasma display panel of claim 14, wherein the groove is formed in a region of the second dielectric layer corresponding to the first barriers in the same direction as the first barriers.

17. A plasma display panel of claim 14, wherein the groove is formed in a region of the second dielectric layer corresponding to the second barriers in the same direction as the second barriers.

18. A plasma display panel of claim 14, wherein the groove is formed in a region of the second dielectric layer corresponding to the first barriers in the same direction as the first barriers, and is formed in a region of the second

dielectric layer corresponding to the second barriers in the same direction as the second barriers.

19. A plasma display panel of claim 14, wherein the groove is formed in a corresponding region of the second dielectric layer between the first barriers in the same direction as the first barriers.

20. A plasma display panel of claim 14, wherein the groove is formed in a corresponding region of the second dielectric layer between the second barriers in the same direction as the second barriers.

21. A plasma display panel of claim 14, wherein the groove is formed in a corresponding region of the second dielectric layer between the first barriers in the same direction as the first barriers, and is formed in a corresponding region of the second dielectric layer between the second barriers in the same direction as the second barriers.

a 22. A plasma display panel of ^{claim 16} ~~any one of claims 16 to 18,~~ wherein the groove is wider than the first barriers and the second barriers.

8 23. A plasma display panel comprising:

a first substrate;

a plurality of first substrate electrode pairs formed on the first substrate at constant intervals in one direction;

a second substrate;

a plurality of second substrate electrodes formed on the second substrate at constant intervals to cross the first substrate electrode pairs;

first barriers formed on the second substrate with the second substrate electrodes interposed therebetween; and

at least two or more second barriers formed in a boundary portion of upper and lower discharge cells on the second substrate to be separated from the first barriers and to maintain predetermined intervals among one another.

9 24. A plasma display panel of claim 23, wherein the second barriers are formed in the same direction as the first substrate electrode pairs.

10 25. A plasma display panel of claim 23, wherein the second barriers are formed in the same direction as the first barriers.

11 ~~26~~. A plasma display panel of claim ~~23~~⁸, wherein the second barriers have either a horizontal width or a vertical width equivalent to the first barriers.

12 ~~27~~. A plasma display panel comprising:

- a first substrate;
- a plurality of first substrate electrode pairs formed on the first substrate at constant intervals in one direction;
- a second substrate;
- a plurality of second substrate electrodes formed on the second substrate at constant intervals to cross the first substrate electrode pairs;
- first barriers formed on the second substrate with the second substrate electrodes interposed therebetween; and
- second barriers formed in a boundary portion of upper and lower discharge cells on the second substrate to be separated from the first barriers and to have a width of a surface opposite to the first barriers, which increases at a constant ratio or more than a width of the first barriers.

13 ~~28~~. A plasma display panel of claim ~~27~~¹², wherein the second barriers have concave and convex portions on a surface opposite to the first barriers.